Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended): A valve control system for distributing and regulating the flow of coolant issuing from a water pump to a radiator, a bypass line and a heater comprising:

a valve housing having ports formed therein including an inlet port configured to receive coolant issuing from a water pump, a first outlet port configured to direct coolant to a radiator, a second outlet port configured to direct coolant to a bypass line and a third outlet port configured to direct coolant to a heater;

a valve rotor, rotatably disposed within the valve housing, wherein the valve rotor including a first valve portion with a first internal fluid passage arrangement with at least two first openings and a second valve portion with a second internal fluid passage arrangement with at least two second openings, the first internal fluid passage arrangement and the second internal fluid passage arrangement being in fluid communication with each other, the first internal fluid passage arrangement to provide fluid communication between the first inlet port and the first outlet port and between the first inlet port and the second internal fluid passage arrangement, the second fluid internal passage arrangement to provide fluid communication between the inlet port and at least one of the second outlet port and the third outlet port;

~~can provide a plurality of internal fluid passages within the valve rotor to provide fluid communication between the inlet port and at least one of the first outlet port, the second outlet port and the third outlet port~~;

a drive mechanism that is operatively connected to the valve rotor for moving the valve rotor into at least one preselected rotational orientation; and

a processor that is operatively connected to the drive mechanism to selectively rotate the valve rotor.

2. (Previously Presented): The valve system for distributing and regulating the flow of coolant according to claim 1, wherein the processor is operatively connected to a plurality of sensors.

3. (Previously Presented): The valve system for distributing and regulating the flow of coolant according to claim 2, wherein the plurality of sensors includes at least one temperature sensor.

4. (Currently Amended): The valve system for distributing and regulating the flow of coolant according to claim 1, further comprising a fluid pump that is ~~fluidly connected~~ in fluid connection to the inlet port.

5. (Previously Presented): The valve system for distributing and regulating the flow of coolant according to claim 4, wherein the fluid pump is powered by electricity.

6. (Previously Presented): The valve system for distributing and regulating the flow of coolant according to claim 1, further comprising a radiator that is in fluid connection to the first outlet port.

7. (Previously Presented): The valve system for distributing and regulating the flow of coolant according to claim 1, further comprising a biasing mechanism to position the valve rotor in a preselected rotational orientation relative to the valve housing.

8. (Currently Amended): The valve system for distributing and regulating the flow of coolant according to claim 1, wherein the first fluid passage arrangement including a third internal fluid passage extending between and connecting a portion of the first fluid passage arrangement in fluid connection to the second internal fluid passage arrangement. ~~wherein the plurality of internal fluid passages includes a first fluid passage that extends down along a central axis of the valve rotor and the plurality of internal fluid passages includes at least one second fluid passage that extends from the first fluid passage to at least one opening in the outer surface of the valve rotor, wherein the at least one opening can be selectively positioned by the rotation~~

~~of the valve rotor via the drive mechanism to selectively control coolant flow from the inlet port to the first outlet port, the second outlet port and the third outlet port.~~

9. (Currently Amended) The valve system for distributing and regulating the flow of coolant according to claim 1, including ~~wherein the plurality of internal fluid passages includes~~ a gap between the valve rotor and the valve housing and further including at least one flexible seal between the valve rotor and the inlet port and at least one flexible seal between the valve rotor and at least one of the first outlet port, the second outlet port and the third outlet port to prevent fluid from flowing into the gap.

10. (Currently Amended): A valve control system for distributing and regulating the flow of coolant issuing from a water pump to a radiator, a bypass line and a heater comprising:

a valve housing having ports formed therein including an inlet port configured to receive coolant issuing from a water pump, a first outlet port configured to direct coolant to a radiator, a second outlet port configured to direct coolant to a bypass line and a third outlet port configured to direct coolant to a heater;

a valve rotor, rotatably disposed within the valve housing, wherein the valve rotor including a first valve portion with a first internal fluid passage arrangement with at least two first openings and a second valve portion with a second internal fluid passage arrangement with at least two second openings, the first internal fluid passage arrangement and the second internal

fluid passage arrangement being in fluid communication with each other, the first internal fluid passage arrangement to provide fluid communication between the first inlet port and the first outlet port and between the first inlet port and the second internal fluid passage arrangement, the second fluid internal passage arrangement to provide fluid communication between the inlet port and at least one of the second outlet port and the third outlet port; ~~can provide a plurality of internal fluid passages within the valve rotor to provide fluid communication between the inlet port and at least one of the first outlet port, the second outlet port and the third outlet port~~;

a drive mechanism that is operatively connected to the valve rotor for moving the valve rotor into at least one preselected rotational orientation;

a processor that is operatively connected to the drive mechanism to selectively rotate the valve rotor;

at least one sensor that is operatively connected to the processor; and

a fluid pump that is fluidly connected to the inlet port.

11. (Currently Amended) A valve control system for distributing and regulating the flow of coolant issuing from a water pump to a radiator, a bypass line and a heater comprising:

a valve housing having ports formed therein including an inlet port configured to receive coolant issuing from a water pump, a first outlet port configured to direct coolant to a radiator, a second outlet port configured to direct coolant to a bypass line and a third outlet port

configured to direct coolant to a heater, wherein the inlet port and first outlet port are located in a first plane and the second outlet port and the third outlet port are located in a second plane;

a valve rotor, rotatably disposed within the valve housing, wherein the valve rotor including a first valve portion with a first internal fluid passage arrangement with at least two first openings and a second valve portion with a second internal fluid passage arrangement with at least two second openings, the first internal fluid passage arrangement and the second internal fluid passage arrangement being in fluid communication with each other, the first internal fluid passage arrangement to provide fluid communication between the first inlet port and the first outlet port and between the first inlet port and the second internal fluid passage arrangement, the second fluid internal passage arrangement to provide fluid communication between the inlet port and at least one of the second outlet port and the third outlet port; ~~can provide a plurality of internal fluid passages within the valve rotor to provide fluid communication between the inlet port and at least one of the first outlet port, the second outlet port and the third outlet port~~;

a drive mechanism that is operatively connected to the valve rotor for moving the valve rotor into at least one preselected rotational orientation;

a biasing mechanism disposed about a shaft of the valve rotor to position the valve rotor in a preselected rotational orientation relative to the valve housing;

a processor that is operatively connected to the drive mechanism to selectively rotate the valve rotor;

at least one sensor that is operatively connected to the processor; and

a fluid pump that is fluidly connected to the one inlet port.

12. (Previously Presented): The valve system for distributing and regulating the flow of coolant according to claim 11, further comprising a radiator that is in fluid connection with the first outlet port.

13. (Currently Amended): The valve control system for distributing and regulating the flow of coolant according to claim 11, wherein said first fluid passage arrangement including a third internal fluid passage extending between and connecting a portion of the first fluid passage arrangement in fluid connection to the second internal fluid passage arrangement, and portions of the first and second internal fluid passage arrangements lying in generally parallel spaced apart planes. ~~wherein the plurality of internal fluid passages includes a first fluid passage that extends down along a central axis of the valve rotor and the plurality of internal fluid passages includes a plurality of second fluid passages from the first fluid passage to at least one first surface opening in the valve rotor in the first plane, wherein the plurality of second fluid passages can be positioned by the rotation of the valve rotor via the drive mechanism to selectively control coolant flow from the inlet port to the first outlet port in the first plane and from the inlet port to the second outlet port and the third outlet port in the second plane~~.

14. (Previously Presented): A valve control system for distributing and regulating the flow of coolant issuing from a water pump to a radiator, a bypass line and a heater comprising:

a valve housing having ports formed therein including an inlet port configured to receive coolant issuing from a water pump, a first outlet port configured to direct coolant to a radiator, a second outlet port configured to direct coolant to a bypass line, a third outlet port configured to direct coolant to a heater and a fourth outlet port configured to degas coolant within the valve housing, wherein the inlet port and first outlet port are located in a first plane and the second outlet port and the third outlet port are located in a second plane and the fourth outlet port is located on a bottom portion of a valve housing, wherein the first plane and the second plane are substantially perpendicular to a central axis for the valve rotor and the first plane and the second plane are axially spaced from each other;

a valve rotor, rotatably disposed within the valve housing, wherein the valve rotor can provide at least one internal fluid passage within the valve rotor to provide fluid communication between the inlet port and at least one of the first outlet port, the second outlet port, the third outlet port and the fourth outlet port;

a drive mechanism that is operatively connected to the valve rotor for moving the valve rotor into at least one preselected rotational orientation;

a biasing mechanism disposed about a shaft of the valve rotor to position the valve rotor in a preselected rotational orientation relative to the valve housing;

a drive mechanism operatively connected to the valve rotor;

a processor that is operatively connected to the drive mechanism to selectively rotate the valve rotor;

at least one sensor that is operatively connected to the processor; and

a fluid pump that is fluidly connected to the inlet port.

15. (Previously Presented): The valve control system for distributing and regulating the flow of coolant according to claim 14, wherein the at least one internal fluid passage includes a first fluid passage parallel to a central axis of the valve rotor and having a first surface opening in a top portion of the valve rotor and a second surface opening in the bottom portion of the valve rotor and the at least one internal fluid passage includes a second fluid passage from the first fluid passage to a third surface opening in the valve rotor in the first plane and at least one internal fluid passage includes a third fluid passage from the first fluid passage to a fourth surface opening in the valve rotor in the first plane and the at least one internal fluid passage includes a fourth fluid passage from the first fluid passage to a fifth surface opening in the valve rotor in the first plane, wherein the second fluid passage, the third fluid passage and the fourth fluid passage can be positioned by the rotation of the valve rotor via the drive mechanism to selectively control coolant flow from the inlet port to the first outlet port in the first plane and the at least one internal fluid passage includes a fifth fluid passage from the first fluid passage to a sixth surface opening in the valve rotor in the second plane, wherein the fifth fluid passage can be positioned by the rotation of the valve rotor via the drive mechanism to selectively control

coolant flow from the inlet port to the second outlet port in the second plane and the third outlet port in the second plane and at least one internal fluid passage includes at least one sixth fluid passage from the first fluid passage to at least one seventh surface opening in the bottom portion of the valve rotor, wherein the at least one sixth fluid passage can be positioned by the rotation of the valve rotor via the drive mechanism to selectively provide degassing of coolant, passing within the valve, via the fourth outlet port.

16. (New): The valve system for distributing and regulating the flow of coolant according to Claim 1, wherein the first internal fluid passage being spaced from the second internal fluid passage along a longitudinal axis of the valve rotor.

17. (New): The valve system for distributing and regulating the flow of coolant according to Claim 16, wherein the first internal fluid passage arrangement lies generally in a first plane and the second internal flow passage arrangement lies generally in a second plane, said first and second planes being generally parallel and spaced apart along the longitudinal axis of the valve rotor.

18. (New): The valve system for distributing and regulating the flow of coolant according to Claim 17, wherein the first valve portion and the second valve portion being integral with each other.